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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,552	01/07/2002	Gary Glocei	10541-822	2455

29074 7590 10/17/2003

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EXAMINER

SPISICH, GEORGE D

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 10/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/040,552

Applicant(s)

GLOCERI ET AL.

Examiner

George D. Spisich

Art Unit

3616

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 9-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 20-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Oath/Declaration

The substitute oath/declaration filed July 28, 2003 has been received and is accepted.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 and 20-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 2-3, claiming "standardized for use in vehicle exhaust systems" is unclear. It is unclear to claim a vehicle structure with respect to a different and uninvolved device (exhaust system). Furthermore, it is unclear for the reason that there is in the present, past and future, ^{no} ~~the~~ same "standard" tube in a vehicle exhaust system. Standards change. It is also unclear for the reason that "standards" vary from place to place and application to application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunert et al. (USPN 6,511,096) in view of Wycech (USPN 6,233,826) in view of JP405278049A.

Kunert et al. disclose a suspension subframe for a vehicle comprising a plurality of metal tubes affixed to each other. Kunert et al. disclose (see col. 3, lines 63-64) that a light metal can be used. This teaches the importance of a lightweight subframe arrangement.

Wycech discloses inserting epoxy and urethane resins (col. 4, lines 46-48) within a metal tube at predetermined locations and localized at specific points to reinforce the structural strength of the tube and allow for decreased dimension of the tube and decreased weight of the tube with respect to simply increasing the dimensions of a structural tube to accomplish the desired increase in structural strength (col. 1, 23-27) while also reducing costs. This "foam" is placed within the tube as a "cartridge" and able to be cured with the metal tubes.

JP405278049A discloses a structural foam being sprayed into a hollow vehicle member.

With respect to the gauge of the tubes being “less than 2 mm” and “between .9 mm and 1.8 mm” and “about 1.5 mm” (claims 2-4 and *), it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a tube with these dimensions since it has been held that where the general conditions of a claim are disclosed in the prior art (the teachings Kunert et al. and Wycech to reduce the dimensions of the tube and reinforce the tubes with foam to provide a strong and lightweight subframe), discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the suspension structure of Kunert et al. by inserting a reinforcing structural epoxy resin based foam in cartridge form as taught by Wycech or by spraying the foam as taught by JP405278049A and further optimize the dimensions of the metal tubes to provide a stronger, lighter, less costly suspension subframe.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartel et al. (USPN 6,516,913) in view of Applicant's admitted Prior Art shown in Figure 1.

Hartel et al. disclose a suspension subframe made of a metal member having a wall thickness less than about 2 mm, or between 0.9 mm and about 1.8 mm, or about 1.5 mm. The thickness of the wall of the member of Hartel et al. (see col. 3, 12-13) is disclosed as between 1 mm and 2.8 mm. Hartel et al. disclose this member being filled

Art Unit: 3616

at localized/predetermined specific points with a polyurethane foam or epoxide foam (see col. 3, lines 18-21).

However, Hartel et al. does not disclose the vehicle suspension subframe having a plurality of metal tubes.

Applicant's admitted Prior Art (AAPA) in Figure 1 shows the same U-shape as Hartel et al. and further includes a cross member at the open end of the U-shape. This cross member adds strength to the U-shaped subframe and also allows for the mounting of various vehicle components on the subframe.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the foam filled U-shaped subframe of Hartel et al. by providing a cross member at the open end of the U-shaped member as taught by AAPA, so as to strengthen the subframe and provide to the ability to mount various vehicle components on the subframe.


Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (703) 305-6495. The examiner can normally be reached on Monday to Friday 6:00-3:30 except alternate Friday.

Art Unit: 3616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.

Gds 
October 15, 2003

 10/16/03
ERIC CULBRETH
PRIMARY EXAMINER